

IN THE CLAIMS:

Claim 1 (currently amended): A method of manufacturing a hard metal substrate from a hard ~~material~~ metal substrate having a hard material layer with pores and an intermediate layer of a chemically different material from the hard material layer, disposed between the hard metal substrate and the hard material layer, ~~the method comprising:~~

~~—selected the hard material layer and the intermediate layer to be~~ being made of respective materials that dissolve in a selected layer removal solution comprising hydrogen peroxide, so that the material of the intermediate layer is more readily dissolved in the removal solution than the material of the hard material layer during a selected time period, the hard material layer being selected from the group consisting of an oxide, nitride, carbide, carbonitride, or carboxynitride of at least one element from Group 4, 5, 6, 13, or 14 of the Periodic Table with the exclusion of TiN, and the intermediate layer consisting of TiN, the method comprising the steps of:

applying the selected removal solution comprising hydrogen peroxide to the hard material layer so that the removal solution penetrates the pores of the hard material layer and contacts the intermediate layer to dissolve at least some of the intermediate layer to at least partly release the hard material layer from the hard metal substrate; and

after at least some of the intermediate layer has been dissolved by the removal solution, removing the hard material layer from the hard metal substrate.

Claim 2 (canceled)

Claim 3 (canceled)

Claim 4 (currently amended): A method as claimed in claim [[3]] 1, wherein the hard material layer is expressed as $(E_n)X$, and wherein E is the Group 4, 5, 6, 13 or 14 element of the Periodic Table, X is at least one of N, C and O, and $n = 2$.

Claim 5 (currently amended): A method as claimed in claim [[2]] 1, wherein a layer thickness d_z of the intermediate layer $[(d_z)]$ is selected to be $0.01 \mu\text{m} \leq d_z \leq 0.5 \mu\text{m}$.

Claim 6 (currently amended): A method as claimed in claim [[5]] 1, wherein a $[(d_z)]$ layer thickness d_z of the intermediate layer $[(d_z)]$ is selected to be $0.01 \mu\text{m} \leq d_z \leq 0.3 \mu\text{m}$.

Claim 7 (currently amended): A method as claimed in claim [[5]] 1, wherein a $[(d_z)]$ layer thickness d_z of the intermediate layer $[(d_z)]$ is selected to be $0.01 \mu\text{m} \leq d_z \leq 0.2 \mu\text{m}$.

Claim 8 (currently amended): A method as claimed in claim [[3]] 1, wherein the Group 4, 5, 6, 13, or 14 element of the Periodic Table comprises ~~elements E comprise~~ at least one of aluminum, silicon, chromium or boron.

Claim 9 (currently amended): A method as claimed in claim [[2]] 1, wherein the hard material layer comprises a CrC, CrN, CrCN or WCC layer.

Claim 10 (currently amended): A method as claimed in claim [[9]] 1, wherein the hard material layer is a CrC, CrN, CrCN or WCC layer.

Claim 11 (currently amended): A method as claimed in claim [[2]] 1, wherein the hard material layer comprises at least one of a TiAlN or a TiCrN layer.

Claim 12 (currently amended): A method as claimed in claim [[2]] 1, wherein the hard material layer comprises a TiAlN layer.

Claim 13 (currently amended): A method as claimed in claim [[12]] 1, wherein the hard material layer is only a TiAlN layer.

Claim 14 (currently amended): A method as claimed in claim [[2]] 1, wherein the hard material layer has a thickness of at least 2 μm .

Claim 15 (canceled)

Claim 16 (currently amended): A method as claimed in claim [[15]] 1, wherein the hydrogen peroxide removal solution is maximally 50 wt.% hydrogen peroxide.

Claim 17 (currently amended): A method as claimed in claim [[15]] 1, wherein the hydrogen peroxide removal solution is maximally 20 wt.% hydrogen peroxide.

Claim 18 (currently amended): A method as claimed in claim [[15]] 1, wherein NaOH is included in the removal solution.

Claim 19 (currently amended): A method as claimed in claim [[18]] 1, wherein in the removal solution comprises maximally 5.0 wt.% NaHO.

Claim 20 (currently amended): A method as claimed in claim 1 [[18, in]] wherein the removal solution comprises maximally 0.5 wt.% NaHO ~~is in the solution.~~

Claim 21 (currently amended): A method as claimed in claim [[15]] 1, wherein at least one of the substances disodium oxalate and KNa tartrate tetrahydrate are included in the removal solution.

Claim 22 (currently amended): A method as claimed in claim [[21]] 1, wherein [[the]] at least one of the substances disodium oxalate and KNa tartrate tetrahydrate are included in the removal solution at maximally 5 wt.%.

Claim 23 (currently amended): A method as claimed in claim [[15]] 1, wherein the removal solution comprises, exclusively of water, the hydrogen peroxide[[,]] with NaHO and at least one of the substances disodium oxalate and KNa tartrate tetrahydrate.